

Expectations of radiographer reporting roles: A multimethod evaluation across a single imaging network.

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Expectations of radiographer reporting roles: a multimethod evaluation across a single imaging network

Introduction

Although the UK National Health Service (NHS) is viewed as a single entity this belies the complexity of delivery at a national, regional and local level. In the 1990s competition between providers was introduced with the aim of driving quality standards and increasing efficiency.^{1,2} Three decades on and the landscape looks very different with collaboration and integration key to the future survival and success of the service. Integrated Care Systems (ICSs) were established in England to bring together partner organisations to deliver joined up care, improving health outcomes and productivity whilst reducing inequalities and costs.^{2,3} At the time of writing there are 42 ICSs in England 2, encompassing provider collaboratives and alliances to capitalise on the benefits of working at scale. Key to this is working with multiple partners and enabling organisations to lead, transform and deliver together, sharing resources as a coherent system.

This collaboration is especially relevant within imaging with the Richards' review outlining the need for new service delivery models through partnership working across networks.⁴ Underpinning workforce development is key with training, effective utilisation of staff and cross network collaboration an expectation.⁵ Skill mix initiatives have already been embraced in the sector but require significant increase in radiographer numbers⁵ to facilitate this in an already depleted service. To this end, Health Education England (HEE), now the NHS England Workforce, Training and Education directorate (NHSE WTE) launched new regional training academies to support the development of the whole imaging workforce. These regional initiatives build on established radiology academies⁶ and a small number of radiographer reporting academies.⁷⁻⁹

Regionalisation of clinical training support and sharing of workloads across organisations is also expected to facilitate a collective approach to governance, working and service planning.⁸ The 2020 review of radiology services¹⁰ recommended standardisation of reporting training so that trainees can report for any organisation once they have qualified and been proved competent. This underpins the academy approach to facilitating the sharing and integration of practices between trusts and peer support to promote consistency.⁹ Previous research has demonstrated variation in radiographer utilisation in the reporting of radiographs¹¹⁻¹⁴ and despite model governance frameworks¹⁵ one area for ongoing consideration is the level that radiographers will be educated to and operate at in such roles. The 2022 Education and Career Framework¹⁶ published by the College of Radiographers formalised the enhanced practice level into the career structure alongside the established assistant, practitioner, advanced and consultant roles. As such ICSs and trusts will have to consider workforce planning and alignment of local career structures to enable service and workforce planning.¹⁷

This article presents the findings of a study exploring the role expectations and utilisation of radiographers who are currently, or training in, reporting in projection radiography across a single ICS. For the purposes of this article the term reporting radiographer is used so as not to bias the findings to align to a single level of practice.

Method

The project utilised a multi-method approach with document analysis of employer role documents and an online survey of managers and clinical leads, including those in educational supervisor roles

for radiographers in reporting training. Data collection was sequential and the whole data collection took place in 2021.

The study setting was a single ICS in the north of England serving a population of 1.5 million patients with 72,000 members of staff in four geographical places. The ICS includes 208 GP practices, five acute hospital trusts, three community/mental health trusts and four local authorities.^{18,19} The five acute trusts provide a comprehensive range of imaging services and all employ reporting radiographers. The trusts include a tertiary centre, three district general hospitals and one paediatric specialist hospital.

Ethical approval was gained from the higher education institution (EC26728), as this project was undertaken as part of an academic award, and from the principal investigator's place of employment (SE0931). The NHS Health Research Authority (England) checklist and decision tool confirmed that ethical approval was not required.²⁰ The imaging network management group gave their support to the project and the network Lead Radiographer was consulted prior to the start of the project and acted as gatekeeper. Trusts have been pseudonymised to maintain anonymity.

Document analysis

Employer expectations of reporting radiographer roles were explored through job description (JD) and person specification document analysis. Document sets for established projection radiography reporting radiographer/advanced practitioner roles (including trainee, lead and consultant posts) from all the five acute trusts were collated for analysis by a single reviewer.

Information regarding job title, Agenda for Change (AfC) pay banding and education requirements were extracted and recorded using Microsoft Excel® 2018. Additional information such as whether the scope of reporting practice and job planning information were included, and if the four pillars were explicitly outlined or formed basis for JD structure were also documented. Expected duties outlined in each JD were mapped to individual capabilities within the HEE Multi-Professional Framework for Advanced Clinical Practice²¹ and direct example quotations categorised on the spreadsheet within the domains of clinical practice, leadership and management, education and research. This enabled exploration of commonality or variation between trusts in expectations of reporting radiographers, similar to Harris et al.²² The READ approach was utilised to systematically guide the document analysis; ready materials, extract data, analyse data and distil findings.²³ Excerpts from documents have been reported where appropriate to illustrate themes.

Online survey

Informed by the JD document analysis and a literature review an electronic survey (Jisc, Bristol, UK) was developed comprising a combination of Likert scale and free-text questions. The survey (supplementary material) sought to capture manager/clinical lead expectations of radiographer capability and perceptions of role utilisation. Participants were also asked for their views on the potential for role standardisation across the imaging network. The survey was piloted on individuals outside the study population with suggested minor changes made prior to distribution.

All imaging service leads and/or those directly involved in the management or educational supervision of reporting radiographers across the five imaging services were invited to participate by the gatekeeper. The survey was completed anonymously and was deployed in October 2021 and remained open for four weeks with reminder emails circulated at two weeks.

Survey response data was downloaded into Excel, with direct quotes from free-text responses grouped to enable the identification of themes. To maintain anonymity, no names or job titles of

individuals responding were sought, and trust name was only required to verify whether all organisations had responded. The data was stored on a password protected computer and will be retained for 3 years in line with the ethical approval. Categorical data was analysed descriptively by the principal investigator, and free text comments were evaluated for common themes and quotes have been reported verbatim.

Results

Document analysis

All five acute trusts provided JD and person specification documentation. A single projection radiography reporting radiographer JD was in place at four of the trusts, with the fifth trust also providing documentation for a consultant radiographer post (AfC band 8b). No documents related to trainee and lead reporting radiographer were supplied by any trust, as these roles were not formally established at the time of project execution.

Analysis of the reporting radiographer JDs showed that across the imaging network these posts were consistently paid at AfC band 7. The scope of reporting practice was not detailed in any of the document sets, and there was no mention of job planning or number of sessions expected to be allocated to reporting or other duties. With regards to educational requirements, three trusts (60%) stipulated a postgraduate qualification in reporting as being an essential requirement of a reporting radiographer, with the remaining two (40%) only specifying postgraduate education as desirable. Attainment of a master's degree was not mentioned as being essential or desired in any of the five reporting radiographer JD or person specifications.

Job titles differed between trusts, although all reporting radiographer roles included variations of the term 'advanced practitioner' and included the 'reporting' role function, for example Advanced Practitioner Plain Film Reporting Radiographer. Despite this, only two (n=2/5) JDs explicitly referred to the four pillars of advanced practice and none utilised a structure based upon the pillars.

All five reporting radiographer JDs outlined expected capabilities that could be mapped to and categorised within the HEE (2017) advanced practice domains of clinical practice, leadership and management, education and research. However, two of the appraised reporting radiographer JDs (40%) did not include the term 'autonomy' or 'autonomous' which is consistently used to define advanced practice and the expected capabilities at the advanced practice level were not explicit.²¹

Despite all JDs outlining expected duties that align to the four pillars, there was variation between trusts in terminology used and the breadth and scope of described capabilities.

Clinical practice was generally characterised in JDs as staff having extensive radiographic experience and capability to independently interpret and report X-ray examinations.

"Experienced ... radiographer with expert knowledge of plain film radiography underpinned by theory and experience...act as an expert practitioner in plain film reporting" – Trust C

"... to undertake independent image interpretation of digital radiographic images and provide detailed written or verbal reports" – Trust D

"... act as an autonomous expert practitioner demonstrating advanced clinical competencies, interpreting complex procedures and effectively communicating with clinicians and patients" – Trust E

All JDs included expectations around leadership and management roles and in supervising and acting as a role model to radiographers, assistant practitioners and students. There was variation in how this was documented with all referencing involvement in local service developments or improvements and some specifying future and innovative planning.

“Contribute to the operational and future planning of the department including formulation of the business plan” – Trust A

“Support the Radiology Manager and Clinical Lead in service improvements to deliver national and local objective targets” – Trust C

“Identify areas for improvement and manage changes” – Trust D

“Leading elements of service innovation” – Trust E

Expected involvement in education was consistent across trusts in terms of breadth and scope of expected activity. Reporting radiographers are expected to participate in the education of staff both within radiography departments and the wider multi-disciplinary team, providing specialist image evaluation and interpretation teaching to support quality improvement.

“Provide multidisciplinary training across professional boundaries to a range of staff including radiographers, student radiographers, nursing and medical staff” – Trust A

“Coordinates, devises and delivers formal training in image interpretation for radiographers and other professionals” – Trust B

“Be involved in the development and delivery of internal and external multidisciplinary teaching programmes on image interpretation” – Trust D

All trusts expected reporting radiographers to be involved in research and/or audit activity, however there was inconsistency in the level of involvement ranging from leading to supporting research/audit activity. Additionally, not all trusts explicitly mentioned involvement in disseminating research findings.

“Lead and participate in audit and contribute to a clinically focused research strategy within radiology” – Trust C

“Take a leading role in audit and research to enable implementation of required service improvements and corrective actions, to ensure continued evidence based practice and highquality service delivery” – Trust D

“Engagement in research or audit” – Trust E

“Contribute to the presentation of findings of research locally and nationally at conferences etc. and ensure any conclusions and recommendations are disseminated to the appropriate people” – Trust C

“Evidence of publication” – Trust E

Online Survey

Survey responses were received from 12 participants representing all five ICS acute trusts. The highest number of responses was from trust E with 5 participants and trusts C and D had the lowest with one participant each. No specific population details are available therefore no response rate can be calculated. The majority of participants (n=10/12; 83.3%) stipulated their involvement in the

leadership or supervision of reporting radiographers in projection radiography, with five (n=5/12; 41.6%) holding direct line management responsibility.

Reporting radiographer utilisation

Four respondents felt that the current JDs were not an accurate reflection of staff and role utilisation in practice. Free text responses offered insight into the underlying reasons, with some participants highlighting how reporting radiographer skills were being underutilised and explaining that JDs have not been updated in line with role developments:

“Under utilised for reporting” – Respondent 3 (Trust A)

“I believe the true scope of practice and job requirements of individuals [reporting radiographers] at this trust are not reflected in the job description” – Respondent 5 (Trust E)

“The job role often develops beyond the job description, and it is very difficult to write a JD to encompass developments without making it too generic. A supplementary to the original JD is often required” – Respondent 9 (Trust B)

The majority of participants (n=9/12; 75%) believed that there were barriers to individuals fulfilling their roles. These included time and staffing pressures, the prioritisation of image acquisition and varying levels of radiologist support:

“Limited scope of [reporting] practice, radiologists reluctant to hand over more reporting” – Respondent 3 (Trust A)

“Current plain film service demands often mean staff (reporting radiographers) are pulled to work on department. This, coupled with big reporting backlogs is putting pressure on individuals to focus on service delivery and time for the other 3 pillars [of advanced practice] is often neglected.” – Respondent 5 (Trust E)

“Current staffing pressures to back fill clinical. Reporting radiographers do not have time to perform research and audit. Patients come first at point of contact, so this takes priority” – Respondent 11 (Trust D)

Interestingly, one participant described the potential impact of management structure, specifically, reporting radiographers having multiple managers, and the impact upon role fulfilment:

“I think multiple managers have created barriers to [reporting radiographers] fulfilling the job description and a change in perception of what the full role of a reporting radiographer should entail” – Respondent 12 (Trust E)

Expectations of reporting radiographer roles

The general consensus across participants was that reporting radiographers are expected to have autonomy and should fulfil duties that span the four advanced practice pillars and map to the HEE advanced practice framework²¹ (figure 1). All participants agreed that reporting radiographers should have job plans with allocated reporting sessions. Whilst the majority of participants (n=10/12; 83.3%) agreed that the scope of practice should be defined locally, one participant (n=1/12; 8.3%) disagreed and stated that they believe radiographer scope of practice and qualification should be standardised nationally.

Figure 1: Likert scale responses regarding role scope and advanced practice expectations

There was a mixed response as to whether respondents expect reporting radiographers working at advanced practice level to hold a full master's degree. Three (n=3/12; 25%) did not agree that this was necessary, with one participant offering insight in to their opinion in a free-text comment:

“Do not feel that full MSc is necessary to fulfil [the] role as a competent and experienced reporting radiographer/ACP [advanced clinical practitioner] if you have post graduate qualifications specific for your role” – Respondent 11 (Trust D).

Perceptions of standardising reporting radiographer roles across ICS X The final section of survey questions explored opinions regarding the feasibility of harmonising role titles and JDs across the ICS, and responses were mixed (figure 2).

Figure 2: Likert scale responses regarding the potential for role harmonisation across the Integrated Care System

The majority of participants (n=11/12; 91.7%) thought this would have advantages, however a large proportion (n=10/12; 83.3%) also acknowledged potential barriers. In free-text comments participants described perceived advantages of role standardisation as including improved ability of reporting radiographers to work across the system with assured equal quality and expectations. Standard expectations and titles may also ensure fair development opportunities for reporting radiographers, and easier identification and understanding of the role by other professionals and patients.

“In these time of integrated care and insourcing of work it is crucial that roles are standardised to ensure adequate quality across the region. We also need to ensure fair career progression/development opportunities for reporting radiographers” – Respondent 5 (Trust E)

“Continuity throughout the ICS. Easy for staff to transfer between trusts. Easy for staff to understand what is expected of them” – Respondent 13 (Trust E)

The main perceived disadvantage to the development and implementation of a standard JD across a network was highlighted by several participants as a potential lack of flexibility to tailor roles to meet local trust requirements and specialisms.

“Other trusts may require very varied duties from reporting radiographers. I also think it depends on the amount that a trust employs” – Respondent 12 (Trust E)

“Definitely not standardised for specialist areas such as paediatrics” – Respondent 1 (Trust C)

The main barriers to the development of standard job titles and JDs included the varying scopes of reporting practice across the trusts, inconsistent radiologist support and concern about the feasibility of trusts reaching a consensus.

“Each trust reports different scopes depending on demand and agreement by radiologists, this would be hard to standardise” – Respondent 12 (Trust D)

“Radiologist support in terms of reporting scope will be by far the biggest hurdle to overcome” – Respondent 5 (Trust E)

“Getting individual trusts/departments to agree on anything is always difficult” – Respondent 4 (Trust E)

One participant also raised concern about the varying qualifications of reporting radiographers and how this was perceived to be as a result of different education funding streams and strategic drivers over time.

“Existing staff may not have the same qualification as HEE [Health Education England] funded staff” – Respondent 2 (Trust A)

Discussion

This study located within a single NHS ICS has demonstrated variation across organisations in the implementation of the reporting radiographer role in projection radiography. This inconsistency is perhaps not unexpected given that multiple previous national surveys have demonstrated similar outcomes.^{11,13,24-27} These findings are perhaps exacerbated by the national AfC job profiles which were published in 2005²⁸ and have not been updated in line with contemporary roles or frameworks.^{16,21} It was also acknowledged that some JDs were outdated and did not reflect current practice.

All job titles placed the reporting radiographer role at the advanced practitioner level yet did not require post holders to complete a master's degree, confirmed by those in leadership roles. This is in contradiction to standards nationally, both in terms of advanced practice and the radiography profession, but concurs with previously published research.^{13,22} There was acknowledgement that some reporting radiographers may have different qualifications from those whose education was more recently funded and that may justify potential changes in expectations. However, it is unclear whether organisations are defining jobs as advanced but not requiring the expected educational preparation, or equivalence assessed through accreditation. Stewart-Lord et al.²⁹ previously suggested that some roles with the 'advanced' title may not meet the criteria for such roles. In this study, JD content and responses from the participants confirmed that reporting radiographers were expected to be autonomous and work across all four pillars. They were expected to be providing education to the multi-professional team, leading audit and research and acting as a role model and point of contact, perhaps demonstrating the justification of the advanced status. Yet, it was clear from free text comments that non-clinical capabilities require educational preparation and this was not overtly expected by all employers.

There was also an acknowledgement of the need for flexibility in roles which may hamper harmonisation of JDs across a network, in particular this was seen to be related to the specialist nature of some of the organisations. In addition, there was perceived variation in support from other professions for role standardisation yet minimum training and education standards are now in place for musculoskeletal³⁰ and chest³¹ radiograph reporting regardless of base profession. This goes some way to ensuring clinical skills are standardised but scope and utilisation still varies at a local, regional and national level.^{12-14,24,25,27} Inappropriate staff utilisation was a theme identified within the responses, with many acknowledging that current staffing pressures are hampering effective delivery of reporting capacity and stalling the non-clinical contributions, a theme identified by others.^{14,24} One identified opportunity of a harmonised approach to roles was seen to be the potential for career development. Ensuring a fair and equitable system with opportunities for progression across the system would increase and support recruitment and retention within the ICS.

A number of limitations must be acknowledged. The findings relate to data collected in late 2021 and further guidance on role implementation and workforce planning both in imaging and advanced practice have been published in the subsequent time interval.^{16,32,33} The principal investigator is employed as a reporting radiographer by one of the ICS trusts and the implications of insider

research should be recognised. It should also be noted that the range in provider trust size and speciality focus may have influenced some of the responses from survey participants. As the study was undertaken as an educational project, document analysis was performed by a single reviewer. However, discussion at every stage of analysis with the academic supervisor does confer some element of rigour to this process.

Conclusions

This study has confirmed variation in expectations of the reporting radiographer within projection radiography across trusts within a single ICS. Identified inconsistencies in scope, essential education requirements and role activities expected by each employer can provide a baseline for discussion on harmonisation to enable cross-organisational working. The opportunities for role standardisation include career progression, recruitment and retention and training. However, challenges need to be overcome through networking and a clear career framework.

Similar to previous research, radiographers in autonomous reporting roles are referred to as advanced practitioners but are not expected to achieve the national educational standards²¹ for such roles. Disparity between established practitioners and those training currently may exacerbate the issue and strategies to support and accredit those already in post and practicing at an advanced level are required. Future scoping of the need for enhanced and advanced practitioners may assist in appropriate service and workforce planning.

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